

REMARKS

A. Introduction

Claims 1-8, 10-20 and 30-43 were pending in the application at the time of the Office Action. Claims 1-8, 10-20 and 30-43 were rejected as being obvious over cited art. By this response applicant has amended claim 1 to clarify claim language, claim 12 to remedy a formal matter, and has added new claims 44-46. The new claims are supported in the application at least at Figure 2 and the corresponding discussion in the specification. As such, applicant submits that the amendments to the claims do not introduce new matter and entry thereof is respectfully requested. Claims 1-8, 10-20 and 30-46 are presented for the Examiner's consideration in light of the following remarks.

B. Claim Objections

Page 2 of the Office Action objects to claim 12 based on a formal matter. In response thereto, Applicant has amended claim 12 in the manner suggested by the Examiner. In light of this, Applicant respectfully submits that the objection has been rendered moot and should be withdrawn.

D. Claim Rejections

i. Obviousness Rejection of Claims 1-3, 6, 7, 42, and 43

Pages 2 and 3 of the Office Action reject claims 1-3, 6, 7, 42, and 43 under 35 USC § 103(a) as being obvious over U.S. Patent No. 5,163,940 to Bourque ("*Bourque*") in view of U.S. Patent No. 5,346,496 to Pennig ("*Pennig*"). Applicant respectfully traverses this rejection.

Applicant respectfully asserts that a *prima facie* case of obviousness has not been established regarding rejected claims 1-3, 6, 7, 42, and 43, at least because the Office Action has failed to establish that the proposed combination teaches or suggests all the limitations of the rejected claims, and because the proposed combination would render the cited art unsatisfactory for its intended purpose.

At the outset, Applicant notes that the Examiner has failed to state precisely what the Examiner believes to constitute the purportedly obvious combination of *Bourque* and *Pennig*. In the response the Examiner has conceded that *Bourque* fails to disclose “wherein the template is movable in a linear fashion.” Office Action at p. 3. The Examiner then cites *Pennig* for disclosing “a first end of a brace (9) that is movable linearly at an end” and notes that “8’ is considered the point at which a sleeve could contact via a longitudinal axis two different locations, since the end of the brace (9) moves the entire templated portion (8’) between at least a first and second locations.” Office Action at p. 3. The Examiner concludes that “it would have been obvious ... to construct the device of Bourque having at least a templated end portion that is capable of movement between a first and second locations [sic] with respect to the longitudinal axis of the sleeve of Bourque to better arrange the device with respect to the various anatomies of a patient.” Office Action at p. 3, *emphasis added*. Applicant respectfully submits however that simply stating that it would be obvious “to construct the device of Bourque having at least a templated end portion that is capable of movement between a first and second location ...” is vague and unclear and thus provides little insight as to the specific nature of the purportedly obvious combination.

First, it is not clear to Applicant what is meant by the term “templated end portion,” recited by the Office Action. For example, the Examiner might be referring to one of the end

portions of locator probe 28, as that is the portion of *Bourque* that the Office Action appears to equate to the claimed “template.” As another example, the Examiner could be referring to a portion of the probe housing 82 of *Bourque*, as it is unclear in the Office Action whether the probe housing 82 is also equated to the claimed “template” in the Office Action. Due to the vagueness of the above language, other constructs are also possible.

Second, it is not clear to Applicant how such a “templated end portion” would be added to *Bourque*. For example, it might be the position of the Examiner is that it would be obvious to somehow add the “templated end portion” 8’ of *Pennig* to *Bourque*. As another example, it might alternatively be the position of the Examiner that it would be obvious to somehow modify one of the structures of *Bourque* to somehow replace a portion of the structure with the “templated end portion” 8’. Yet other meanings may instead be intended by the Examiner.

Inasmuch as the Examiner has failed to clearly identify the specific nature of the purportedly obvious combination, Applicant submits that the Office Action has failed to establish that the allegedly obvious combination of *Bourque* and *Pennig* teaches or suggests all the limitations of the rejected claims. Applicant thus submits that, for at least this reason, the Office Action has failed to establish a *prima facie* case of obviousness with respect to claims 1-3, 6, 7, 42, and 43.

Notwithstanding the vagueness of the rejection, Applicant has assumed for purposes of responding to the Office Action that the Examiner’s intent was that it would have been obvious to modify the end portion of locator probe 28 that is disposed within probe housing 82 to include the end portion 8’ taught by *Pennig*. If this assumption is incorrect, Applicant respectfully requests that the Examiner clarify the rejection.

Based on the above assumption, the rejection made by the Examiner is problematic for other reasons as well. For example, it is well established that a reference cannot be properly combined or modified to support a *prima facie* obviousness rejection if the modification to the reference renders the reference unsatisfactory for its intended purpose. See *MPEP* § 2143.01. Applicant submits that modifying *Bourque* in the manner set forth above would render *Bourque* unsatisfactory for its intended purpose.

As shown in Figure 2, *Bourque* includes a probe housing 82 to which a locator probe 28 “is rigidly affixed.” See col. 4, lines 24-25. Locator probe 28 “comprises an elongated shaft 80 ... [which] is bent or curved.” Col. 4, lines 24-26. The *Bourque* probe housing 82 is movable along an arcuate path formed by beam 22. *Bourque* discloses that beam 22 “has a curvature which defines part of the perimeter of a circle.” Col. 3, lines 45-46. As a result, as the probe housing 82 moves along beam 22, the angle of locator probe 28 changes with respect to drill sleeve 32 so that locator probe 28 is always pointing toward the center of the circle. *Bourque* discloses that the purpose for this is to “assure ... that the end of the locator probe 28 and a drill positioned in the drill guide locator 24 will have a common point of intersection (at or adjacent point 34) regardless of the position of the locator probe 28 along the beam 22.” Col. 3, lines 48-52. Using simple concepts of trigonometry, it can be understood that this is only the case when the length of the “bent or curved” probe is the same as the radius of the circle. If the probe length becomes more or less than the radius of the circle, the point of intersection of the end of locator probe 28 will change depending on the position of the housing 82 along beam 22.

Thus, if a “templated end portion,” such as attachment 8’ of *Pennig*, was added to the end of locator probe 28 of *Bourque* disposed within probe housing 82 so as to allow locator probe 28 to move linearly in and out of probe housing 82, the length of locator probe 28 would not always

be equal to the radius of the circle by virtue of its linear motion. As a result, there would no longer be a “common point of intersection,” identified by *Bourque* and discussed above as being one of the main purposes therein. As such, combining the cited art in the allegedly obvious fashion set forth in the Office Action would render *Bourque* unsatisfactory for its intended purpose.

Inasmuch as the allegedly obvious modification of *Bourque* based on the teachings of *Pennig* would render *Bourque* unsatisfactory for its intended purpose, Applicant respectfully submits that the Office Action has again failed to establish a *prima facie* case of obviousness with respect to claims 1-3, 6, 7, 42, and 43.

In view of the foregoing discussion, Applicant respectfully requests that the obviousness rejection of claims 1-3, 6, 7, 42, and 43 be withdrawn.

ii. Obviousness Rejection of Claims 12-16, 18, 30-36, 38, and 41

Pages 3 and 4 of the Office Action reject claims 12-16, 18, 30-36, 38, and 41 under 35 USC § 103(a) as being obvious over the *Bourque* patent alone, and claims 4 and 5 as being obvious over the *Bourque* patent in view of *Pennig*. Specifically, the Office Action concedes that *Bourque* and *Pennig* fail to disclose the “template hav[ing] a low profile and ... a paddle-like shape, a protrusion, and a constricted stem portion,” but asserts that these limitations would have been “obvious design modifications,” and as such would have been obvious to one of skill in the art. See Office Action at pp. 3-4. Applicant respectfully disagrees. Of the rejected claims, claims 12, 30, and 41 are independent claims.

Bourque discloses that locator probe 28 has its elongate bent or curved shape “in order to allow the probe to be inserted and positioned in the knee joint without contacting or being

interfered with by the tibial plateau or the patella.” Col. 4, lines 24-29, emphasis added. As a result, the shape of locator probe 28 is an important consideration in the *Bourque* drill guide as it would impact this purpose of *Bourque*. As shown in Figure 12 of *Bourque*, the small rod-like shape of locator probe 28 allows the probe to pass between the tibia and femur without contacting either one. To modify locator probe 28 of *Bourque* to comprise a base plate (claims 4 and 5) or a base plate in the form of “a low profile plate,” (claim 12) or “a flattened plate,” (claim 30) or “an enlarged plate,” (claim 41) or to have “a constricted stem ... having a transverse cross sectional width that is smaller than a transverse cross sectional width of the base plate” (claims 12, 30, and 41) would likely detrimentally impact this feature of the *Bourque* drill guide. As such, contrary to the assertion of the Office Action, the above-identified claimed limitations are not simply “obvious design modifications,” but would be significant modifications to the *Bourque* apparatus.

Furthermore, Applicant submits that modifying *Bourque* to include one or more of the claimed size and shape limitations would render *Bourque* unsatisfactory for its intended purpose. As noted above, the size and shape of locator probe 28 is such as “to allow the probe to be inserted and positioned in the knee joint without contacting or being interfered with by the tibial plateau or the patella.” Applicant submits that modifying locator probe 28 of *Bourque* to comprise a base plate (claims 4 and 5) or a base plate in the form of “a low profile plate,” (claim 12) or “a flattened plate,” (claim 30) or “an enlarged plate,” (claim 41) would likely cause locator probe 28 to contact at least the tibial plateau, which would render *Bourque* unsatisfactory for its intended purpose.

Finally, having a flat plate at the end of the template gives the present invention many unique advantages not found in the cited art. For example, due to its shape, the plate portion of

the template can be placed directly on a medial or lateral facet of the superior auricular surface of the tibia. Then, when the guide wire or other drilling tool is advanced through the proximal end of tibia 12, the plate portion acts as a shield to prevent the guide wire or other drilling tool from accidentally contacting and damaging the femur. None of the cited art provide such benefits. For example, because the *Bourque* probe 28 is small and rod-shaped, a drill could easily pass by or even glance off the probe as it is being drilled into the bone.

In light of the foregoing, Applicant submits that the Office Action has failed to establish a *prima facie* case of obviousness with respect to claims 4, 5, 12, 30, and 41 because the allegedly obvious modifications of *Bourque* are not simply obvious design modifications and because the allegedly obvious modifications would render the cited art unsatisfactory for its intended purpose. Accordingly, Applicant respectfully requests that the obviousness rejection with respect to claims 4, 5, 12, 30, and 41 be withdrawn.

Claims 13-16, 18, 31-36, and 38 depend from claims 12, 30, and 41 and thus incorporate the limitations thereof. As such, applicant submits that claims 13-16, 18, 31-36, and 38 are distinguished over the cited art for at least the same reasons as discussed above with regard to claims 12, 30, and 41. Accordingly, Applicant respectfully requests that the obviousness rejection with respect to claims 13-16, 18, 31-36, and 38 also be withdrawn.

iii. Obviousness Rejections of Claims 8, 10, 11, 17, 19, 20, 37, 39, and 40

Page 4 of the Office Action rejects claims 8, 17, and 37 under 35 USC § 103(a) as being obvious over the *Bourque* patent (and in some cases the *Pennig* patent) in view of various other U.S. patent references (Patent No. 4,781,182 to Purnell et al., Patent No. 5,354,302 to Ko, and Patent No. 6,120,511 to Chan). Claims 8, 10, 11, 17, 19, 20, 37, 39, and 40 each depend from

one of claims 1, 12, 30, and 41 and thus incorporate the limitations thereof. However, Applicant submits that none of the further cited art cure the deficiencies of *Bourque* (or the allegedly obvious combination of *Bourque* and *Pennig*) as discussed above with regard to independent claims 1, 12, 30, and 41. As such, Applicant submits that claims 8, 10, 11, 17, 19, 20, 37, 39, and 40 are allowable over the cited art for at least the same reasons as discussed above with regard to claims 1, 12, 30, and 41. Accordingly, Applicant respectfully requests that the obviousness rejection with respect to claims 8, 10, 11, 17, 19, 20, 37, 39, and 40 be withdrawn.

No other objections or rejections are set forth in the Office Action.

E. New Claims

Applicant submits that new claims 44-46 are distinguished over the cited art of record. For example, claim 44 recites that “the linear movement of the template between the posterior position and the anterior position with respect to the brace occurs in a direction that is substantially parallel to the direction of the curve at the first end of the brace;” claim 45 recites that “the template is telescopically mounted to the first end of the brace so as to extend away from the brace in the direction of the curve at the first end of the brace;” and claim 46 recites that “the template extends away from the brace so as to be aligned with the curve of the brace at the first end of the brace.” In contrast, the only linear motion that could arguably occur between locator probe 28 and probe housing 82 of *Bourque* would be in a direction that is perpendicular to the direction of the curve of the beam 22, and thus would not read on the above noted limitations.

Furthermore, new claims 44-46 depend from claims 1 and 12 and thus incorporate the limitations thereof. As such, Applicant submits that new claims 44-46 are distinguished over the cited art for at least the same reasons discussed above regarding claims 1 and 12.

F. Conclusion

Applicant notes that this response does not discuss every reason why the claims of the present application are distinguished over the cited art. Most notably, applicant submits that many if not all of the dependent claims are independently distinguishable over the cited art. Applicant has merely submitted those arguments which it considers sufficient to clearly distinguish the claims over the cited art.

In view of the foregoing, applicant respectfully requests the Examiner's reconsideration and allowance of claims 1-8, 10-20 and 30-46 as amended and presented herein.

In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Dated this 8th day of July, 2008.

Respectfully submitted,

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